

Educational Establishment
“Belarusian State University of Culture and Arts”

APPROVED

Vice-rector for Academic Affairs of
Educational Establishment “Belarusian
State University of Culture and Arts”

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INFORMATION TECHNOLOGIES IN ART HISTORY

*The syllabus of the academic discipline for the specialty
for advanced higher education 7-06-0213-01 Art History*

The syllabus is completed in accordance with the educational standard of higher education for the speciality of advanced higher education 7-06-0213-01 Art History, approved by Resolution of the Ministry of Education of the Republic of Belarus No. 182, June 29, 2023, and the curriculum for the specialty of advanced higher education 7-06-0213-01 Art History, reg. № 7-06-02-01ин/23уч., February 15, 2023.

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EXPLANATORY NOTE

In the process of development of the informational society, the means of studying and popularizing various fields of knowledge, including artistic culture, are substantially changing. Training a specialist in advanced higher education in the field of Art History should include the study of tools that will help to create conditions for the development and management of new ideas in the field of art, stimulate creative thinking. The effective tool to organize access to information resources and ensure interactivity of the process is the information technology.

The main purpose to teach the use of Information Technology in the field of Art History is to develop students' creative abilities through interactivity, which contributes to the development of practical professional skills. Currently, information systems are widely used to work with text, statistical and dynamic images (video), animated computer graphics, speech, music, etc.

The objective of the academic discipline "Information Technologies in Art History" is to train students to use the application of information technology to study arts, design research and organize interaction with the audience to popularize certain ideas. Knowledge of this discipline provides methods to implement the author's projects.

In accordance with the educational standard of higher education for the speciality of advanced higher education 7-06-0213-01 Art History the content of the academic discipline is aimed at the formation of the following universal competences:

UC-1 Apply methods of scientific knowledge in research activities, generate and implement innovative ideas.

UC-2 Solve research and innovation problems based on the use of information and communication technologies

UC-4 Provide communication, demonstrate leadership skills, be capable of team building and developing strategic goals and objectives

UC-9 Organize scientific activities, determine optimal directions and methods for scientific research;

and the following advanced professional competences:

APC-1. Be able to present research results to the scientific community and the general public in the form of scientific communications, reports and publications/

The academic discipline "Information Technology in Art History" is related to the discipline "Organization and conduct of scientific research", which is a part of the "Research work" module.

The purpose of teaching the discipline "Information Technologies in Art History" is to prepare students for the use of information technology as a tool to organize activities to develop new ideas in the field of art, stimulate creative thinking, generate their own ideas, and develop means to attract as many art connoisseurs as possible.

Tasks of the academic discipline:

- mastery over the methods and means of solving research problems in the field of culture and arts through the use of information technology;
- formation of a general idea of the areas of application of information technology in various areas of Art History;
- the study of the basic tools for developing tools to attract art lovers, the most relevant in the context of informatization;
- acquisition with skills to create a creative product using different techniques information presentation for expressive purposes.

As a result of studying the discipline, the student should know:

- theoretical foundations of the functioning of Art History information in society and problems of informatization of culture and arts;
- methods of organization of the scientific data collection and processing based on the use of information technology when conducting art studies;
- modern achievements in the development and use of digital and communication technologies in the field of theoretical and practical Art History;
- methods of creation of the multimedia information products of the main types of arts;
- Internet technologies methods of organization of the activities in cultural institutions for the purpose of implementation of projects in the field of culture and arts.

The student must be able to:

- find and assess Art History information in the web space and adapt it for further distribution in the media environment;
- create multimedia information products of the main types of art;
- comprehensively use a variety of software tools to solve research and professional tasks of an art critic;
- use network media resources in the professional activities of an art critic;
- organize the activities of cultural institutions and the implement projects in the field of culture and arts using cloud web technologies;
- create information resources in the media environment, in accordance with modern standards.

The student must be able to apply:

- methods of designing information systems of various Art History directions;
- methods of organizing activities to implement a project in the field of culture and art based on Internet technologies;
- methods of media resources development to attract art connoisseurs;
- methods of development of multimedia information products of the main types of arts.

The main forms of educational process are lectures, seminars, laboratory work, independent study of individual issues, as well as the implementation of

independent research based on modern information technologies. In the process of training, students should prepare a creative project.

Lectures provide information on the problematic theoretical issues of information modeling of objects, phenomena, processes and systems, the fundamentals of designing information systems of various art criticism directions and scientific research in the field of Art History. The issues of information support of creative processes are considered.

For the study of the discipline "Information Technologies in Art History", the educational standard provides for 92 hours in total, 36 of which are classroom hours. The approximate distribution of classroom hours by occupation: lectures - 18 hours, practical classes – 18 hours. The recommended form of students' knowledge control is a credit-based system.

THE COURSE CONTENT

Topic 1. Introduction. Informatization of society. Functioning problems

The importance of Art History information for the society and the main issues of informatization of culture and art spheres. Media environment in the information society. Place and role of media in the modern world. Media development. Modern media technologies.

Features of mediatization in various areas of arts. Means of virtualization for art activities. Digital communication technologies in theoretical and practical fields of arts. The concept of "multimedia." Sociocultural nature of multimedia. The history of multimedia. Multimedia technology tools. Multimedia as a means of communication, artistic creativity and a particular kind of computer technology. Main types of multimedia products. Instrumental software for multimedia developer and its application in art activity.

Topic 2. Multimedia in organization and presentation of research in the field of theoretical and practical Art History

Basic notions of multimedia: audio stream, video stream, text stream. Scene notion. Scenario. Scenario plan, libretto, literature script, directorial script.

Ways of multimedia products presentation. Multimedia technical means classification by information processes types, functional software and hardware use and equipment.

Characteristics of multimedia computer. Data storage devices. Types of file formats. Types of video and audio adapters.

Multimedia presentations. Interactive manner of presenting information. Using hypertext and triggers in the presentation. How to create, to use and to search presentation templates. Influence of color and font on the information perception. Classification of fonts. Object layout, sound, video and animation in a multimedia presentation. Creating a video stream from a multimedia presentation. Using multimedia presentation in a professional activities of Art History specialist.

Topic 3. Technologies and means of processing graphic information

Creation and use of digital graphic images. Classifications of graphic images. Image file formats. Visual presentation of data in infographics. Software packages for working with static graphics (CorelDraw, Adobe Illustrator, Adobe Photoshop, etc.). Software packages for working with dynamic graphics (3D Studio Max, Adobe Illustrator, etc.).

Color representation systems in computer graphics. Color properties. The mechanism of color formation. Color models.

Topic 4. Computer technology in music

Software for creating and processing music. Types of music programs. The use of computer hardware and software in musical creativity.

Music on the Internet. Streaming and static music. Sound file formats on the Internet. Bitrate Placing audio files on the Internet.

Sound file formats. MIDI sound. Advantages and disadvantages of digital sound and MIDI sound.

Recommendations for using sound in multimedia projects.

Topic 5. Technologies of dynamic graphics: video processing

The concept of digital video and its characteristics: frame rate, screen resolution, color resolution, image quality.

Hardware and software for creating, processing and playing digital video.

The video. Concept of plan and frame. Video editing: linear, non-linear and hybrid. Video Standards. Movie customization.

The role of captions in creating footage for multimedia projects. Title Composition Rules.

Topic 6. Methods and means of finding information on the global Internet

Information and information retrieval systems. Classification by organization and filling of the database of documents: directories, search engines (indexes), metasearch systems.

The structure of the search engine: indexer, search robots, database (index), subsystem for issuing search results. Work principles.

Methods for optimizing the search for information on the Internet. Planning a search procedure. Keywords. Search Operators

Domestic, Russian-speaking and foreign search systems. Specialized search engines. Search for graphic and music information.

Topic 7. Network (online) services in the organization of innovative activities in the field of culture

Web space of the Internet as a field of activity of an art critic.

The concept of an online service as a web-oriented software. Advantages and disadvantages of network services. The specifics of working with Internet services. Cost of use, functionality, access method. Types of interactive online services.

Network support programs for research, experimental-consulting and organizational and management activities. Collaboration on documents of various types in the space of the Internet. Tools for creating and distributing presentations. Work with images on the Internet. Video posting services i organizing your own video broadcasting. Online cloud storage services with file sharing features.

Information and PR management on the Internet. Services for organizing your own information resource. Project management and communication services.

E-mail i SMS distribution. Services for automating the printing of RSS feeds on sites and social networks. Bookmarking services, tools for social communication.

Web marketing tools. Creating and conducting surveys. Network services for the analysis of publications and monitoring of social media.

Topic 8. Planning, conducting and processing the results of scientific research in the field of theoretical and practical arts

Research planning software. Solving the tasks of preparing the schedule, communications, cooperation, configuration management and risk analysis.

Spreadsheets. Use for processing research results.

Methods of planning a scientific experiment. Programs for processing experimental research data.

The Internet as a modern means of presenting, receiving, disseminating and sharing research information. Online statistics. Cloud technology in research. Possibilities of creating a survey form, statistical data processing tools. Social networks as a means of obtaining statistics. The capabilities of social networks in the processing of statistical data. Cartographic analysis.

EDUCATIONAL AND METHODOLOGICAL CHART OF THE ACADEMIC DISCIPLINE

№ of the academic discipline sections	Name of the discipline sections	Total	Classroom hours			Guided individual work	Assessment form
			Lectures	Practical classes	Labs		
1.	Introduction. Informatization of society. Functioning problems	1	1				
2.	Multimedia in organization and presentation of research in the field of theoretical and practical Art History	5	1	2		2	Research project
3.	Technologies and means of processing graphic information	3			2	1	
4.	Computer technology in music	2			2		Report
5.	Technologies of dynamic graphics: video processing	3			2	1	Research project
6.	Methods and means of finding information on the global Internet	7	2	2	2	1	Paper
7.	Network (online) services in the organization of innovative activities in the field of culture	9	2	4	2	1	Report
8.	Planning, conducting and processing the results of scientific research in the field of theoretical and practical arts	6	2	4			
TOTAL...		36	8	12	10	6	

INFORMATION-METHODICAL PART

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Recommended Assessment Means

It is recommended to use the project work, scientific report and presentation of research results to assess the students' academic achievements level and to identify its compliance with the requirements of the educational standard. All activities should include the development, planning and implementation of cultural research as well as creative and heuristic issues and prognostic conclusions.

Guidelines for Organizing and Carrying out Individual Work on Discipline

Students' individual work is aimed at enriching their skills in the academic discipline "Information Technologies in Art History" beyond the in-class activity. The purpose of students' individual work is to facilitate the full assimilation of the discipline content through the systematization, planning and control of their individual activities. The teacher gives assignments for individual work and regularly checks them.

According to the content, goals and objectives of the academic discipline "Information Technologies in Art History" students are expected to carry out the following types of individual work: collection and analysis of cultural data, formulation of conclusions and forecasts, development of the research report, development and presentation of research results.

Criteria for Evaluating Students' Knowledge and Skills Level

To assess students' achievements it is recommended to use the following diagnostic tools:

- questioning students during classroom discussions;
- testing selected topics of discipline;
- defense of individual tasks performed during classes;
- presentation of the individual work and discussion on the obtained research results;
- defense of individual project;
- student's participation at the conference with research results presentation;
- passing the final test in discipline.